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L4

A

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CPY - TOXW

DC - A18 A21 A82 G02 M13

FS - CPI

IC - C08F299/02 ; C08G59/14 ; C08G59/16 ; C08G59/40 ; C09D5/00 ; C09D163/00 ; C09D163/10

MC - A05-A01E4 A08-C07 A08-D01 A12-B04B A12-B07A A12-P06B G02-A05 G02-A05E M13-H05

PA - (TOXW) TOYO INK MFG CO LTD

PN - JP11140160 A 19990525 DW199931 C08G59/14 013pp

PR - JP19970301460 19971104

XA - C1999-108402

XIC - C08F-299/02 ; C08G-059/14 ; C08G-059/16 ; C08G-059/40 ; C09D-005/00 ; C09D-163/00 ; C09D-163/10

AB - JP11140160 NOVELTY - A radiation-curing compound (A) is prepared by reacting (a) epoxy compound having 2-20 epoxy groups in a molecule with (b) ethylene unsaturated monocarboxylic acid and/or ethylene unsaturated alcohol.

- INDEPENDENT CLAIMS are given for:

- (i) a radiation-curing oligomer (A') which is prepared by reacting (a') internal epoxy compound having 3-20 epoxy groups in a molecule with (b) and then by polycondensing the reaction products with (c) polyvalent carboxylic acid and/or polyhydric alcohol; and

- (ii) a radiation-curing coating composition which comprises 5-94.5 wt. % of (A) or (A'), 5-94.5 wt. % of (B) epoxy compound which is liquid at normal temperature; and 0.5-15 wt. % of (C) a photopolymerisation initiator.

- (B) contains 20-100 wt. % of alicyclic epoxy compound.

- (a) is, e.g., bis(3,4-epoxycyclohexyl) adipate, soy bean oil epoxidised compound or epoxidised polybutadiene.

- (b) is, e.g., hydroxyalkyl(meth)acrylate, polyethyleneglycol mono(meth)acrylate, (meth)acrylic acid or beta-styrylacrylic acid.

- USE - The coating composition can be applied to metal or resin film and is preferably applied to drinking cans.

- ADVANTAGE - Compound (A), oligomer (A') and the coating composition have good curing speed and good adhesion to a base material. After curing, they have good retort resistance and mechanical processing properties.

- (Dwg.0/0)

IW - RADIATE CURE COATING COMPOSITION METAL CAN COMPRISE COMPOUND PREPARATION REACT POLYEPOXIDE COMPOUND ETHYLENE UNSATURATED MONO CARBOXYLIC ACID POLYEPOXIDE COMPOUND LIQUID NORMAL TEMPERATURE PHOTOPOLYMERISE INITIATE

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NC - 001

OPD - 1997-11-04

ORD - 1999-05-25

PAW - (TOXW ) TOYO INK MFG CO LTD

TI - Radiation-curable coating composition, e.g. for metal cans - comprises compound prepared by reacting epoxy] compound with, e.g., ethylene unsaturated mono:carboxylic acid, an epoxy] compound liquid at normal temperature, and photopolymerisation initiator

- A01 - [001] 018 ; P0464-R D01 D22 D42 F47 ; P0486 P0464 D01 D22 D42 F47 ; L9999 L2391 ; L9999 L2017 ; L9999 L2186-R ; L9999 L2813 ; M9999 M2017 ; M9999 M2186 ; M9999 M2813 ; H0237-R ; S9999 S1627 S1605 ; H0226
- [002] 018 ; E13 E00 D01 D11 D10 D24 D22 D34 D77 D42 D50 D63 D93 F90 F41 ; P0464-R D01 D22 D42 F47 ; L9999 L2391 ; L9999 L2017 ; L9999 L2186-R ; L9999 L2813 ; M9999 M2017 ; M9999 M2186 ; M9999 M2813 ; H0237-R ; S9999 S1627 S1605 ; H0226
- [003] 018 ; R00806 G0828 G0817 D01 D02 D12 D10 D51 D54 D56 D58 D84 ; H0000 ; M9999 M2175 ; L9999 L2391 ; L9999 L2017 ; L9999 L2186-R ; L9999 L2813 ; M9999 M2017 ; M9999 M2186 ; M9999 M2813 ; H0237-R ; S9999 S1627 S1605 ; H0226 ; P0328 ; P0339
- [004] 018 ; G2255 G2222 D01 D23 D22 D42 D73 F47 ; P0000 ; H0011-R ; P0464-R D01 D22 D42 F47 ; L9999 L2391 ; L9999 L2017 ; L9999 L2186-R ; L9999 L2813 ; M9999 M2017 ; M9999 M2186 ; M9999 M2813 ; H0237-R ; S9999 S1627 S1605 ; H0226
- [005] 018 ; ND01 ; ND04 ; Q9999 Q7114-R ; Q9999 Q8457 Q8399 Q8366 ; Q9999 Q7589-R ; K9574 K9483 ; K9552 K9483 ; K9676-R ; K9712 K9676 ; B9999 B5301 B5298 B5276 ; B9999 B5129 B4977 B4740 ; B9999 B3805 B3747 ; B9999 B3623 B3554 ; B9999 B4988-R B4977 B4740 ; B9999 B4386 B4240 ; K9790-R
- [006] 018 ; D01 D12 D10 D26 D11 D19 D18 D31 D76 D54 D51 D57 D58 D59 D60 D91 F36 F35 ; R00446 G0282 G0271 G0260 G0022 D01 D12 D10 D26 D51 D53 D58 D60 D83 F36 F35 ; R00460 G0306 G0271 G0260 G0022 D01 D12 D10 D26 D51 D53 D58 D60 D84 F36 F35 ; R01463 G0408 G0384 G0339 G0260 G0022 D01 D11 D10 D12 D26 D51 D53 D58 D63 D86 F27 F26 F41 F89 ; H0226
- [007] 018 ; R00437 G1525 D01 D11 D10 D50 D84 F23 ; A999 A475
- [008] 018 ; A999 A179 A157
- A02 - [001] 018 ; P8004 P0975 P0964 D01 D10 D11 D50 D82 F34 ; H0226 ; L9999 L2391 ; L9999 L2186-R ; M9999 M2017 ; M9999 M2153-R ; M9999 M2186 ; M9999 M2813
- [002] 018 ; ND01 ; ND04 ; Q9999 Q7114-R ; Q9999 Q8457 Q8399 Q8366 ; Q9999 Q7589-R ; K9574 K9483 ; K9552 K9483 ; K9676-R ; K9712 K9676 ; B9999 B5301 B5298 B5276 ; B9999 B5129 B4977 B4740 ; B9999 B3805 B3747 ; B9999 B3623 B3554 ; B9999 B4988-R B4977 B4740 ; B9999 B4386 B4240 ; K9790-R
- [003] 018 ; H0226
- [004] 018 ; A999 A179 A157